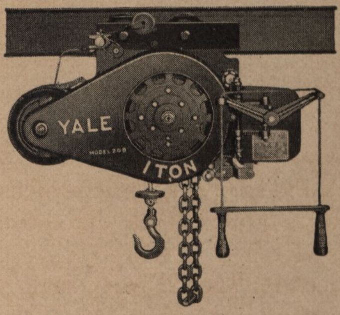
YALE MATERIAL HANDLING EQUIPMENT

The Yale line of material-handling equipment includes Ball-Bearing Spur-Geared Chain Blocks, Screw-Geared and Differential Chain Blocks, Ball-Bearing Electric Chain Hoists, I-Beam Trolleys, Hand Traveling Cranes, Winches and Electric Industrial Trucks, Tractors and Trailers.

We are the largest manufacturer of chain blocks in the country and we have maintained the same high standards for Yale Chain Blocks and Electric Hoists as we have for Yale Locks and Hardware.

Full details regarding our complete line are listed in a separate catalog.

YALE BALL-BEARING ELECTRIC CHAIN HOISTS



YALE
Ball-Bearing
Electric Chain Hoist

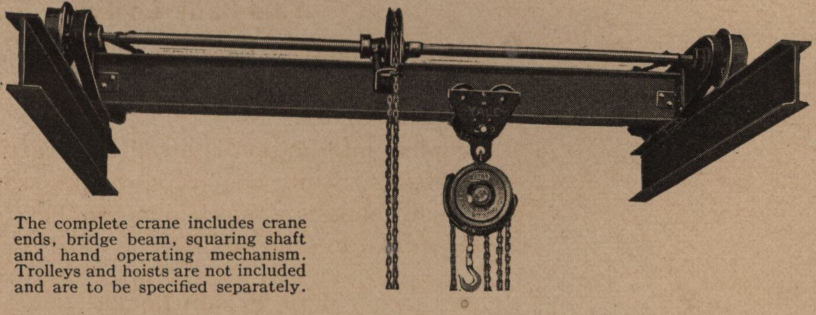
Model 20B Hook Type

Manual Control

Yale Electric Chain Hoists are the result of twenty years' experience and development in building electric hoists ranging from ¼- to 2-ton capacity. The latest design embodies such features as close headroom, long lift, higher speed, automatic top and bottom limit stops, and greater overall strength. These hoists have very unusual factors of safety in the strength of the load supporting members and are designed to withstand shock loads so common with this class of equipment. All suspension members of the Yale Electric Chain Hoist are made of the highest quality steel.

Steel Chain Containers can be furnished to hold any length of slack chain up to 60 ft. for ¼-, ½- and 1-ton hoists and 30 ft. for the 2-ton hoist. These containers are secured to the under frame of the hoist and do not affect the headroom.

YALE HAND TRAVELING CRANES



The complete crane includes crane ends, bridge beam, squaring shaft and hand operating mechanism. Trolleys and hoists are not included and are to be specified separately.

The Yale Single I-Beam Hand Traveling Crane is built to give efficient operation combined with long life. The construction of this crane permits it to be used in places where very limited headroom is available. The Crane consists of a single I-beam supported at each end on a patented truck frame of cast steel for the large sizes and stamped steel on the Number One size. The I-beam is of standard size, sufficient for the required capacity and span.

The lower flange of the I-beam serves as a track for the trolley with the load, as shown above.

The wheels are so constructed that they will operate equally well upon I-beam, channel, or T-rail.

By means of its simple construction, the Crane can be quickly erected. As all parts are standard and kept in stock it is only necessary to order the crane ends, buy the standard I-beam of the required length from your local dealer and assemble, the crane in your own shop. This procedure will save the cost of freight on the I-beam and eliminate the usual delays in shipping such a piece of equipment.

The crane ends for cranes of ¼-ton to 1-ton capacity up to 21 feet span inclusive use the stamped steel ends which are provided with hardened and ground roller bearings.

On cranes above 1-ton capacity and those of ¼-ton to 1-ton capacity, inclusive, with spans greater than 21 feet, the bearings with the axles and wheels are secured to the crane end by means of U-bolts and are bushed with steel roller bearings. These bearings reduce the wear on the axle to a minimum and make the operation of the crane much easier. The bearing is provided with an oil cavity which will hold an adequate supply of oil to keep the roller bearings well lubricated at all times.

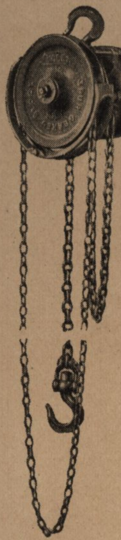
All cranes are equipped with squaring shaft which insures uniform travel of both truck ends, producing easier traveling and preventing undue strain.

Cranes are equipped with hand chain and sprocket wheel. By pulling on the hand chain, the crane is propelled along the runway. The largest capacity cranes are fitted with traveling reducing gears which reduce the amount of pull required on the hand chain necessary to move the crane.

YALE SPUR-GEARED CHAIN BLOCKS

Ball Bearing

¼ to 20 Tons Capacity



Yale Ball Bearing Chain Blocks possess the highest mechanical efficiency heretofore obtained in any chain block hoisting equipment.

The Ball Bearings in the Yale Spur-Geared Blocks are completely enclosed and are protected from dirt and grit by felt and steel washers. These washers also serve the purpose of retaining the lubrication.

A thorough lubrication system is provided. Oil ducts pass through the solid frames, conducting oil direct to the ball bearings, and then on to the driving pinion shaft bearings.

Every block is rated on the long ton basis, 2240 pounds to the ton. Each block is tested before leaving the factory to assure ample reserve capacity for safety in emergency.

Yale Ball Bearing Chain Blocks are the safest, speediest, wear longer and operate with less effort than any other hand hoist made. This is due to the quality of design and workmanship in every detail of the block.

The hollow load sheave is bronze bushed to support the driving pinion shaft, and suitable oil passages provide for continuous lubrication.

The pinion cage which contains the steel gear and pinions is made of tough malleable iron, insuring against the possibility of breakage under shock conditions.

The continuous and adjustable hand chain guide positively prevents fouling of the hand chain.

The steel load chain is die-formed and electrically welded, giving a smooth finished link.

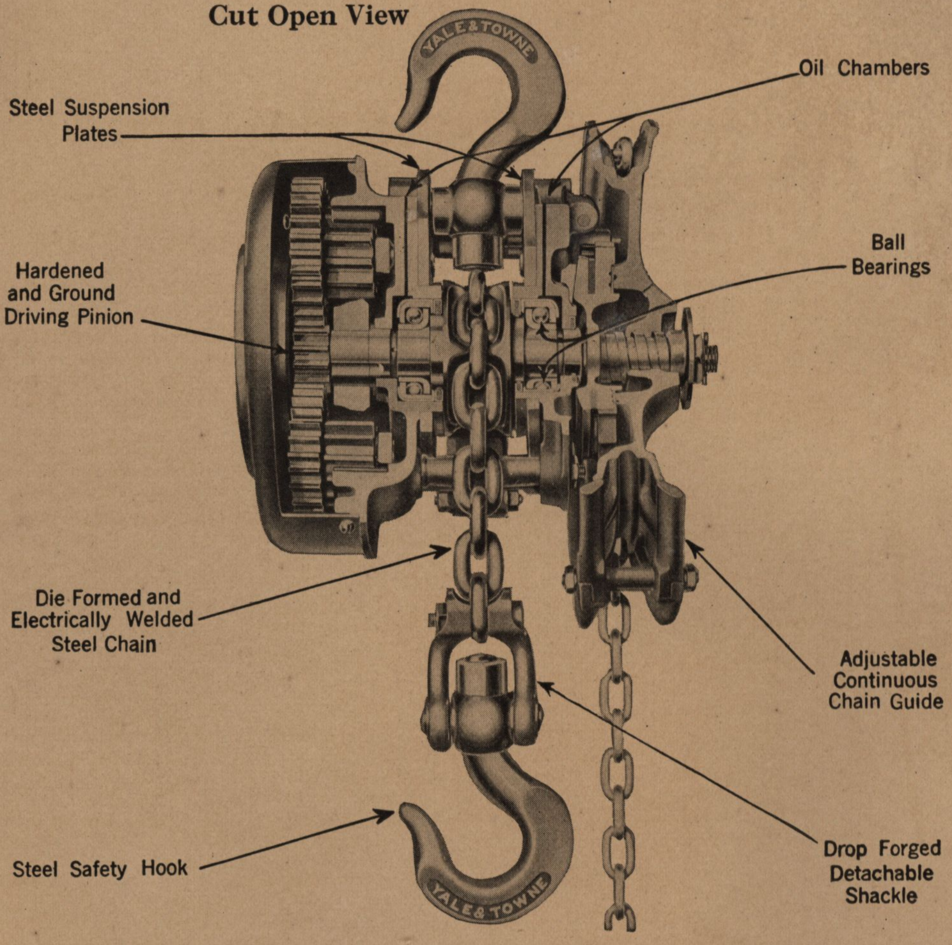
The chain is heat-treated to toughen it and lengthen its life.

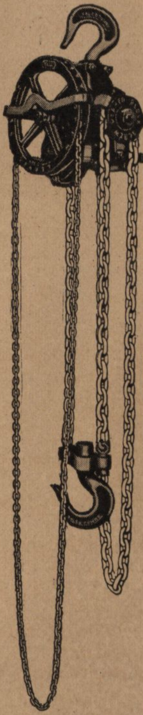
This insures uniform strength throughout.

The detachable shackle and heat-treated oval pin which connects the hook to the load chain make it possible to lengthen the chain in the field without hand-welding.

All parts of the blocks are carefully inspected with limit gauges and are interchangeable.

Cut Open View


Oil Chambers
Steel Suspension Plates
Ball Bearings
Hardened and Ground Driving Pinion
YALE & TOWNE
Die Formed and Electrically Welded Steel Chain
Adjustable Continuous Chain Guide
Drop Forged Detachable Shackle
Steel Safety Hook
YALE & TOWNE



YALE SCREW-GEARED CHAIN BLOCKS

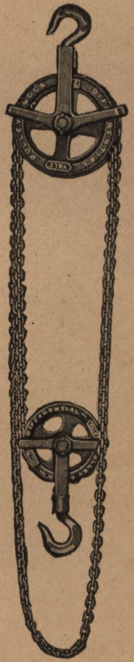
The Yale Screw-Geared Block is operated on the worm wheel and screw principle. The hand wheel is keyed to a hardened steel worm shaft which in turn meshes with a bronze worm wheel. Two steel load sheaves carry the load chain. The entire rotating mechanism is enclosed between two machined castings, all parts being thoroughly bathed in graphite and oil.

The drop forged detachable shackles and oval pins make it possible to readily detach the lower cross-head and hook and lengthen or shorten the load chain without cutting or welding the last link. This is a distinct advantage when a change in the length of the standard load is required.

The Yale Screw-Geared Block holds the load securely in any position. Raising or lowering the load can only be accomplished by exerting a pull on the hand chain.

Rated Capacity in Tons of 2,240 Pounds	Regular Lift in Feet*	Test Load in Tons 2,240 Lbs. to the Ton	Chain Pull to Lift Full Load in Pounds	Chain Overhauled to Lift Load One Foot in Feet	Net Weight in Pounds	Minimum Distance Between Hooks in Inches
½	8	¾	68	40	46	14
1	8	1½	87	59	59	16
1½	8	2¼	94	80	81	19
2	9	3	115	93	104	21
3	10	4½	132	126	187	25
4	10	6	142	155	221	26
5	12	7½	145	195	331	31

*Figures denote the travel of bottom hook with regular length of chains.



YALE DIFFERENTIAL CHAIN BLOCKS

The Yale Differential Chain Block is the simplest form of a strong and reliable lifting or pulling device.

The load is held securely and can only be raised or lowered by exerting a pull on the hand chain.

It is unequalled in garage service, repair shops, or foundries, where a light-weight and portable chain block is required for medium duty or handling the heaviest loads.

Due to the great strength of the drop-forged steel hooks and the electrically welded steel chain used in Yale Differential Chain Blocks, the experienced foreman never takes a chance of dropping the heavy elbow or massive flange that must be carefully lowered into place. His first choice is Yale—he will never risk a human life beneath an inferior, cheaply constructed device.

Contractors have found that the superior qualities built into Yale Differential Blocks lessen the element of danger to their workmen, and greatly reduce the back-breaking work in lowering or removing cumbersome dredging pumps and piping from excavations.

Yale Differential Blocks are tested and rated with the same care and precision as all Yale Material Handling Equipment.

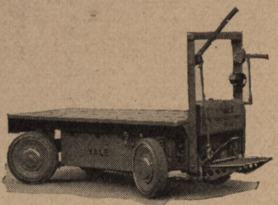
Rated Capacity in Tons of 2,240 Pounds	Net Weight in Pounds	Chain Pull		Total Lineal Feet of Endless Chain	Regular Lift in Feet	Minimum Distance Between Hooks in Ins.	Test Load in Tons of 2,240 Pounds	Hoisting Speed Feet Per Minute and Number of Men Needed to Lift Capacity Loads	
		Pounds	Feet					Full Load	No. of Men
¼	23	72	18	22	6	17	⅜	6	1
½	30	110	24	26	7	21	¾	6	2
1	50	190	30	30	8	26	1½	3.7	3
1½	81	225	36	33	8½	32	2¼	2.5	3
2	121	300	42	36	9	39	3	2.3	4

YALE ELECTRIC INDUSTRIAL TRUCKS

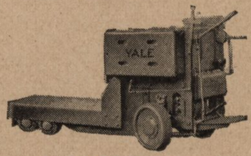
Yale Electric Industrial Trucks, Tractors and Trailers round out the Yale line of material-handling equipment.

We manufacture storage battery trucks to meet practically every intra-plant transportation need, and trucks for special requirements and with special equipment are constantly receiving the attention of our engineers.

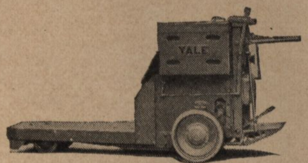
Yale Electric Industrial Trucks give low cost transportation service and we invite correspondence and welcome the opportunity of demonstrating the economies which can be effected by the adoption of a properly installed system of intra-plant transportation.



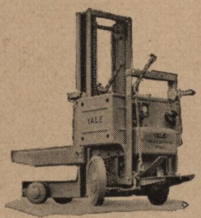
Yale K20 and K21 2- and 3-Ton High Platform Trucks



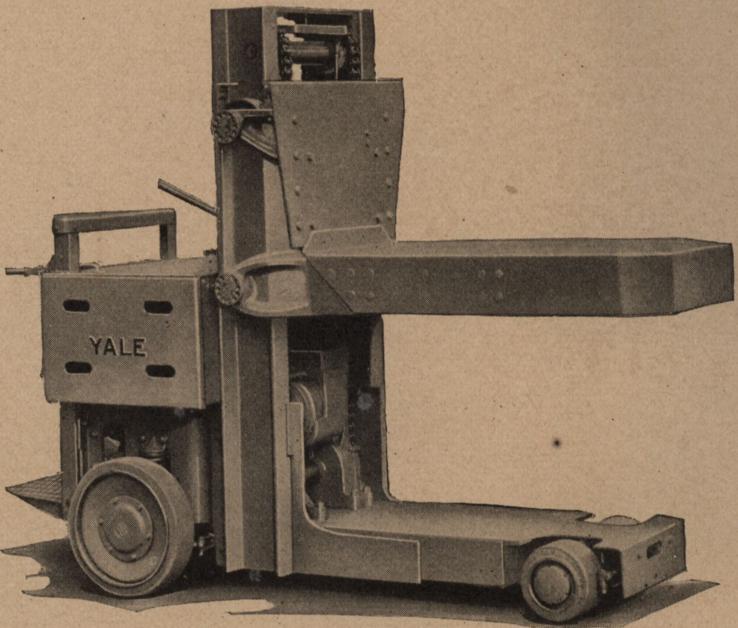
Yale K26 5-ton Low Lift Truck



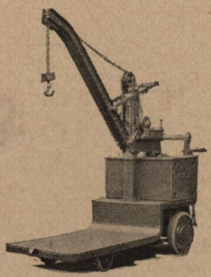
Yale K23E 3-ton Low Lift Truck



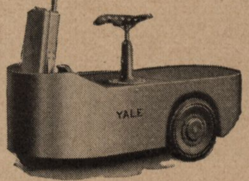
Yale K22 2-ton High Lift Truck



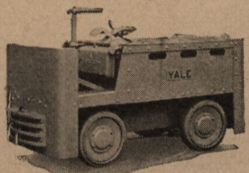
Yale K25 3-ton High Lift Truck



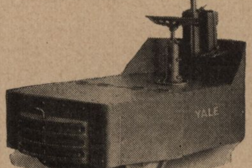
Yale K68 Crane on K23 Low Platform Truck



Yale K24A Three-Wheel Tractor-Truck



Yale K24C Four-Wheel-Steer, Four-Wheel-Drive Tractor



Yale K24B Three-Wheel Heavy-Duty Tractor

Yale K67 Four-Wheel-Steer Rubber Tired Trailer